

**WHAT IS CLAIMED IS:**

1     **Sub A2** > 1. A videophone system, comprising:  
2                    a cable television system headend;  
3                    a plurality of subscriber terminals connected to said headend via a  
4 transmission medium;  
5                    a videophone unit connected to at least one of said plurality of subscriber  
6 terminals;  
7                    a camera associated with each said videophone unit, said camera being  
8 adapted to capture video images for transmission via said videophone unit; and  
9                    at least one display device associated with each videophone unit;  
10                   wherein said videophone unit is adapted to transmit and receive  
11 videophone signals over said transmission medium of said cable television system.

1                   2. The videophone system of Claim 1, wherein said transmission medium  
2 comprises hybrid fiber coax.

1     **Sub A3** > 3. ~~The videophone system of Claim 2, wherein said camera is a digital video~~  
2 ~~camera.~~

1                   4. The videophone system of Claim 1, wherein said videophone unit further  
2 comprises:  
3                    a processor <sup>A</sup> for encoding videophone data to be transmitted and for  
4 decoding received videophone signals.

1                   5. The videophone system of Claim 4, wherein said videophone unit further  
2 comprises an encoder for providing display signals to said display.

1           6.    The videophone system of Claim 5, wherein said encoder comprises an  
2 analog television signal encoder.

1           7.    The videophone system of Claim 5, wherein said encoder comprises a  
2 digital television compositor/display

1           8.    The videophone system of Claim 1, wherein said subscriber terminal is  
2 capable of being configured to operate as a cable modem.

1           9.    The videophone system of Claim 1, wherein said subscriber terminal  
2 comprises a cable modem.

1           10.   The videophone system of Claim 1, further comprising a graphical user  
2 interface operable via a remote control for enabling a user of said videophone system to  
3 place and receive videophone calls.

1           11.   The videophone system of Claim 1, wherein said headend is coupled to a  
2 second headend via a high-speed long distance network to enable videophone signals to  
3 be transported between two different cable television systems.

1           12.   The videophone system of Claim 1, wherein a plurality of videophone units  
2 are connected to one subscriber terminal.

1           13.   The videophone system of Claim 1, wherein said videophone unit is  
2 connected said subscriber terminal by at least one interface selected from the group  
3 comprising: ethernet, wireless ethernet, firewire, universal serial bus, PCI and PCMCIA.

1           14.   The videophone system of Claim 12, wherein said plurality of videophones  
2 are connected to said one subscriber terminal via a local area network.

1           15.    ~~The videophone system of Claim 11, wherein said long distance network~~  
2           ~~includes at least one of a satellite network and a terrestrial network.~~

1           16.    ~~The videophone system of Claim 1, wherein said headend is adapted to~~  
2           ~~convert videophone signals from one predetermined format to a second predetermined~~  
3           ~~format based on a format of a videophone signal receiving unit, wherein a transmitting~~  
4           ~~videophone unit transmits videophone signals in a format different from a format of said~~  
5           ~~videophone signal receiving unit.~~

1           17.    A cable television system adapted to provide transport of videophone  
2           signals, comprising:  
3                   a cable television system headend;  
4                   a plurality of hubs operatively coupled to said headend; and  
5                   a plurality of nodes operatively coupled to said hubs and operatively  
6           coupled to a plurality of videophones via a subscriber terminal, said subscriber terminal  
7           and videophone being operatively coupled to a display device, wherein videophone signals  
8           are transported over the cable television system.

1           18.    The cable television system of Claim 17, wherein said headend comprises:  
2                   a backbone switch;  
3                   a router, an application server, a receiver, a gateway and a network  
4           controller, each operatively connected to said backbone switch; and  
5                   a modulator connected to said gateway.

1           19.    The cable television system of Claim 18, wherein each of said hubs  
2           comprise:  
3                   an interface device coupled to the backbone switch of said headend;  
4                   a gateway and a modulator operatively coupled to said interface; and

1 a demodulator coupled to said modulator and said plurality of nodes.

1 ~~20. The cable television system of Claim 17, wherein said subscriber terminal~~  
2 ~~comprises a cable modem.~~

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A7 > ~~21. The cable television system of Claim 20, wherein a plurality of videophones~~  
2 ~~are connected to a single cable modem via a local area network.~~

1 22. The cable television system of Claim 17, wherein said subscriber terminal  
2 is capable of being configured to operate as a cable modem.

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A8 > ~~23. The cable television system of Claim 17, wherein said headend is in~~  
2 ~~communication with at least one second headend via a long distance network, thereby~~  
3 ~~enabling transport of videophone signals between separate cable television systems.~~

1 24. The cable television system of Claim 19, wherein said interface device  
2 comprises a local area network interface.

1 25. The cable television system of Claim 17, wherein said cable television  
2 system includes a transmission medium comprising hybrid fiber coax.

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A9 > ~~26. The cable television system of Claim 17, wherein said videophone further~~  
2 ~~comprises a digital camera for capturing video images to be transmitted.~~

1 27. The cable television system of Claim 17, wherein said videophone is  
2 integrated into said subscriber terminal.

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1 28. The cable television system of Claim 17, wherein said subscriber terminal.  
2 is interfaced to at least one videophone by at least one interface of the group comprising:  
3 ethernet, wireless ethernet, firewire, universal serial bus and PCMCIA.

1 29. A method for transporting videophone signals over a cable television  
2 network comprising the steps of:  
3 creating a videophone signal;  
4 encoding said videophone signal;  
5 transmitting the encoded videophone signal to a predetermined receiver  
6 over said cable television network;  
7 receiving the transmitted videophone signal at said predetermined receiver;  
8 decoding the received videophone signal; and  
9 displaying the decoded videophone signal on a display device.

1 30. The method of Claim 29, further comprising the step of:  
2 converting said encoded videophone signal at a headend of said cable  
3 television network to provide a converted videophone signal that is compatible with  
4 devices connected to said cable television network or to devices of a second cable  
5 television network.

1 31. The method of Claim 29, wherein said transmitted videophone signals are  
2 further transmitted to a receiver coupled to a second cable television network via a  
3 headend of the cable television network over a long distance data network.

1 32. The method of Claim 29, wherein said received videophone signal is  
2 received by a videophone device coupled to a second cable television network.

1 33. The method of Claim 29, wherein said videophone signal is encoded with  
2 a destination address identifying an intended receiver of said videophone signal.

1 34. The method of Claim 33, wherein said destination address comprises an  
2 IP address.

1 35. The method of Claim 29, wherein the steps of creating, transmitting and  
2 receiving said videophone signal include using a graphical user interface.

1 36. The method of Claim 29, wherein the step of creating said videophone  
2 signal comprises: capturing an image via a digital camera.

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